

CLAIMS

What is claimed is:

1. A handle assembly engageable with a shaft extending from a device, said handle assembly for rotating said shaft to actuate said device, said handle assembly comprising:

a head having a receptacle therein sized to receive said shaft;

an elongated grip attached to said head and projecting outwardly therefrom for facilitating manual rotation of said head when said handle assembly is mounted on said device;

an arcuate slot positioned in said head and having a concave side facing said receptacle, said slot having first and second ends disposed opposite to one another;

a limit post fixedly attachable to said device so as to project into said slot, said limit post being engageable with at least one of said first and second ends of said slot to limit rotation of said head relatively to said device; and

a stop body positioned within said slot, said stop body having first and second gripping surfaces positioned on opposite sides of said head and engageable therewith, at least one of said gripping surfaces being movable into and out of engagement with said head for compressing said head between said gripping surfaces and thereby temporarily fixing said stop body at a predetermined position in said slot, said stop body being engageable with said limit post to limit rotation of said head.

2. A handle assembly according to Claim 1, wherein said stop body comprises a threaded bolt and a nut engageable with said bolt, said bolt extending through said slot and having a bolt head comprising said first gripping surface positioned on one side of said head, said nut comprising said second gripping surface and being positioned on an opposite side of said head, said bolt being temporarily fixed in said predetermined position upon tightening of said nut onto said bolt.

3. A handle assembly according to Claim 1, further comprising a hold fast body for temporarily preventing rotation of said head, said hold fast body being fixedly attachable to said device, said hold fast body having a compression member positioned adjacent to said head, said compression member being movable into and out of engagement with said head, said head being temporarily fixed in a predetermined position when said compression member is moved into engagement therewith thereby preventing its rotation relatively to said device.

4. A handle assembly according to Claim 3, wherein said hold fast body comprises:

said limit post, said limit post comprising a threaded shaft extending through said slot; and

a jam nut threadedly engaged on said limit post, said jam nut comprising said compression member and being engageable with said head upon tightening to compress said head to temporarily fix said head in said predetermined position.

5. A handle assembly according to Claim 1, further comprising:

a plate fixedly mountable on said device and positionable between said head and said device, said plate having a plurality of teeth extending outwardly away from said receptacle and positioned along an arcuate path; and

an elongated latch pivotally attached to said grip, said latch having a first end portion engageable with any one of said teeth and a second end portion extending lengthwise along said grip, said first end portion being pivotally movable into and out of engagement with any one of said teeth by manually pivoting said second end portion relatively to said grip to respectively prevent and permit rotation of said head relatively to said plate.

6. A handle assembly according to Claim 1, further including a lock fitting engageable with a lock for preventing actuation of said device, said lock fitting comprising:

a first aperture extending through said head; and

a plate fixedly mountable on said device and positionable between said head and said device, said plate having a second aperture extending therethrough, said first and second apertures being alignable with one another for receiving said lock therethrough upon rotation of said head, said lock preventing rotation of said head relatively to said plate when engaged with said apertures.

7. A handle assembly according to Claim 6, wherein said plate is attached to said device by a non-removable fastener.

8. A handle assembly according to Claim 7, wherein said non-removable fastener comprises a bolt having a break-away head portion and a nut having a break-away head portion, said head portions being engageable by a tool for tightening said nut and said bolt effecting attachment of said plate to said device, said head portions being removable from said bolt and said nut after attachment of said plate, removal of said head portions preventing removal of said bolt and said nut using said tool.

9. A handle assembly according to Claim 1, further comprising:

a blind hole extending through said head and intersecting said receptacle; and

a pin insertable within said blind hole and engageable with said shaft for retaining said head to said shaft, said head being substantially non-removable from said shaft upon insertion of said pin into said blind hole and engagement with said shaft.

10. A handle assembly engageable with a shaft extending from a device, said handle assembly for rotating said shaft to actuate said device, said handle assembly comprising:

a head having a receptacle therein sized to receive said shaft;

an elongated grip attached to said head and projecting outwardly therefrom for facilitating manual

rotation of said head when said handle assembly is mounted on said device;

an arcuate slot positioned in said head and having a concave side facing said receptacle; and

a hold fast body for temporarily preventing rotation of said head, said hold fast body being fixedly attachable to said device, said hold fast body having a compression member positioned adjacent to said head, said compression member being movable into and out of engagement with said head, said head being temporarily fixed in a predetermined position when said compression member is moved into engagement therewith thereby preventing its rotation relatively to said device.

11. A handle assembly according to Claim 10, wherein said hold fast body comprises:

a threaded post having one end attached to said device and an opposite end extending through said slot; and

a jam nut threadedly engaged on said post, said jam nut comprising said compression member and being engageable with said head upon tightening to compress said head to temporarily fix it in said predetermined position.

12. A handle assembly according to Claim 10, further comprising a stop body positioned within said slot, said stop body having first and second gripping surfaces positioned on opposite sides of said head and engageable therewith, at least one of said gripping surfaces being movable into and out of engagement with said head for compressing said head between said gripping surfaces and thereby temporarily fixing said

stop body at a predetermined position in said slot, said stop body being engageable with said hold fast body to limit rotation of said head.

13. A handle assembly according to Claim 12, wherein said stop body comprises a threaded bolt and a nut engageable with said bolt, said bolt extending through said slot and having a bolt head comprising said first gripping surface positioned on one side of said head, said nut comprising said second gripping surface and being positioned on an opposite side of said head, said bolt being fixed in said predetermined position upon tightening of said nut onto said bolt.

14. A handle assembly engageable with a shaft extending from a device, said handle assembly for rotating said shaft to actuate said device, said handle assembly being engageable with a lock for preventing rotation of said shaft, said handle assembly comprising:

- a head having a receptacle therein sized to receive said shaft;

- a first aperture extending through said head;

- a plate fixedly mountable on said device and positionable between said head and said device, said plate having a second aperture extending therethrough, said first and second apertures being alignable with one another for receiving said lock therethrough upon rotation of said head, said lock preventing rotation of said head relatively to said plate when engaged with said apertures; and

- an elongated grip attached to said head and projecting outwardly therefrom for facilitating manual

rotation of said head when said handle assembly is mounted on said device.

15. A handle assembly according to Claim 14, wherein said plate is attached to said device by a non-removable fastener.

16. A handle assembly according to Claim 15, wherein said non-removable fastener comprises a bolt having a break-away head portion and a nut having a break-away head portion, said break-away head portions being engageable by a tool for tightening said nut and said bolt effecting attachment of said plate to said device, said break-away head portions being removable from said bolt and said nut after attachment of said plate, removal of said break-away head portions preventing removal of said bolt and said nut using said tool.

17. A handle assembly according to Claim 14, further comprising:

a blind hole extending through said head and intersecting said receptacle; and

a pin insertable within said blind hole and engageable with said shaft for retaining said head to said shaft, said head being substantially non-removable from said shaft upon insertion of said pin into said blind hole and engagement with said shaft.

18. A handle assembly according to Claim 14, further comprising:

a plurality of teeth positioned on said plate along an arcuate path, said teeth extending outwardly away from said receptacle; and

an elongated latch pivotally attached to said grip, said latch having a first end portion engageable with any one of said teeth and a second end portion extending lengthwise along said grip, said first end portion being pivotally movable into and out of engagement with any one of said teeth by manually pivoting said second end portion relatively to said grip to respectively prevent and permit rotation of said head relatively to said plate.

19. A handle assembly according to Claim 14, further comprising:

an arcuate slot positioned in said head and having a concave side facing said receptacle, said slot having first and second ends disposed opposite to one another; and

a limit post fixedly attachable to said device so as to project into said slot, said limit post being engageable with at least one of said first and second ends of said slot to limit rotation of said handle relatively to said device.

20. A handle assembly according to Claim 19, further comprising a stop body positioned within said slot, said stop body having first and second gripping surfaces positioned on opposite sides of said head and engageable therewith, at least one of said gripping surfaces being movable into engagement with said head for compressing said head between said gripping surfaces and temporarily fixing said stop body at a predetermined position in said slot, said stop body being engageable with said limit post to limit rotation of said head.

21. A handle assembly according to Claim 20, wherein said stop body comprises a threaded bolt and a nut engageable with said bolt, said bolt extending through said slot and having a bolt head comprising said first gripping surface positioned on one side of said head, said nut comprising said second gripping surface and being positioned on an opposite side of said head, said bolt being fixed in said predetermined position upon tightening of said nut onto said bolt.

22. A handle assembly according to Claim 19, further comprising a hold fast body for temporarily preventing rotation of said head, said hold fast body being fixedly attachable to said device, said hold fast body having a compression member positioned adjacent to said head, said compression member being movable into and out of engagement with said head, said head being temporarily fixed in a predetermined position when said compression member is moved into engagement therewith thereby preventing its rotation relatively to said device.

23. A handle assembly according to Claim 22, wherein said hold fast body comprises:

said limit post, said limit post comprising a threaded shaft extending through said slot; and

a jam nut threadedly engaged on said limit post, said jam nut comprising said compression member and being engageable with said head upon tightening to compress said head to temporarily fix it in said predetermined position.

24. In combination, a valve having a rotatable shaft and a handle assembly engaged with said shaft,

said handle assembly for rotating said shaft to open and close said valve, said handle assembly comprising:

a head having a receptacle therein, said receptacle receiving said shaft;

an elongated grip attached to said head and projecting outwardly therefrom for facilitating manual rotation of said head;

an arcuate slot positioned in said head and having a concave side facing said receptacle, said slot having first and second ends disposed opposite to one another;

a limit post fixedly attached to said valve so as to project into said slot, said limit post being engageable with at least one of said first and second ends of said slot to limit rotation of said head relatively to said valve; and

a stop body positioned within said slot, said stop body having first and second gripping surfaces positioned on opposite sides of said head and engageable therewith, at least one of said gripping surfaces being movable into engagement with said head for compressing said head between said gripping surfaces and temporarily fixing said stop body at a predetermined position in said slot, said stop body being engageable with said limit post to limit rotation of said head.

25. A combination according to Claim 24, wherein said stop body comprises a threaded bolt and a nut engageable with said bolt, said bolt extending through said slot and having a bolt head comprising said first gripping surface positioned on one side of said head, said nut comprising said second gripping surface and being positioned on an opposite side of said head, said

bolt being fixed in said predetermined position upon tightening of said nut onto said bolt.

26. A combination according to Claim 24, further comprising a hold fast body for temporarily preventing rotation of said head, said hold fast body being fixedly attached to said valve, said hold fast body having a compression member positioned adjacent to said head, said compression member being movable into and out of engagement with said head, said head being temporarily fixed in a predetermined position when said compression member is moved into engagement therewith thereby preventing its rotation relatively to said valve.

27. A combination according to Claim 26, wherein said hold fast body comprises:

 said limit post, said limit post comprising a threaded shaft extending through said slot; and

 a jam nut threadedly engaged on said limit post, said jam nut comprising said compression member and being engageable with said head upon tightening to compress said head and temporarily fix it head in said predetermined position.

28. In combination, a valve having a rotatable shaft and a handle assembly engaged with said shaft, said handle assembly for rotating said shaft to open and close said valve, said handle assembly comprising:

 a head having a receptacle therein, said receptacle receiving said shaft;

 an elongated grip attached to said head and projecting outwardly therefrom for facilitating manual rotation of said head;

an arcuate slot positioned in said head and having a concave side facing said receptacle; and

a hold fast body for temporarily preventing rotation of said head, said hold fast body being fixedly attached to said valve, said hold fast body having a compression member positioned adjacent to said head, said compression member being movable into and out of engagement with said head, said head being temporarily fixed in a predetermined position when said compression member is moved into engagement therewith thereby preventing its rotation relatively to said valve.

29. A combination according to Claim 28, wherein said hold fast body comprises:

a threaded post extending through said slot; and

a jam nut threadedly engaged on said post, said jam nut comprising said compression member and being engageable with said head upon tightening to compress said head to temporarily fix it in said predetermined position.

30. A combination according to Claim 28, further comprising a stop body positioned within said slot, said stop body having first and second gripping surfaces positioned on opposite sides of said head and engageable therewith, at least one of said gripping surfaces being movable into and out of engagement with said head for compressing said head between said gripping surfaces and temporarily fixing said stop body at a predetermined position in said slot, said stop body being engageable with said hold fast body to limit rotation of said head.

31. A combination according to Claim 30, wherein said stop body comprises a threaded bolt and a nut engageable with said bolt, said bolt extending through said slot and having a bolt head comprising said first gripping surface positioned on one side of said head, said nut comprising said second gripping surface and being positioned on an opposite side of said head, said bolt being temporarily fixed in said predetermined position upon tightening of said nut onto said bolt.

32. In combination, a valve having a rotatable shaft and a handle assembly engaged with said shaft, said handle assembly for rotating said shaft to open and close said valve, said handle assembly being engageable with a lock for preventing rotation of said shaft, said handle assembly comprising:

- a head having a receptacle therein, said receptacle receiving said shaft;

- a first aperture extending through said head;

- a plate fixedly mounted on said valve and positioned between said head and said valve, said plate having a second aperture extending therethrough, said first and second apertures being alignable with one another for receiving said lock therethrough upon rotation of said head, said lock preventing rotation of said head relatively to said plate when engaged with said apertures; and

- an elongated grip attached to said head and projecting outwardly therefrom for facilitating manual rotation of said head.

33. A combination according to Claim 32, wherein said plate is attached to said valve by a non-removable fastener.

34. A combination according to Claim 33, wherein said non-removable fastener comprises a bolt having a break-away head portion and a nut having a break-away head portion, said breakaway head portions being engageable by a tool for tightening said nut and said bolt upon attachment of said plate to said device, said break-away head portions being removable from said bolt and said nut after attachment of said plate, removal of said break-away head portions preventing removal of said bolt and said nut using said tool.

35. A combination according to Claim 34, further comprising:

a blind hole extending through said head and intersecting said receptacle; and

a pin inserted within said blind hole and engaged with said shaft for retaining said head to said shaft, said head being substantially non-removable from said shaft upon insertion of said pin into said blind hole and engagement with said shaft.